

# Work Order ID 102852

Friday, August 02, 2013 8:47:56 AM

*Ship Mch 20!*  
\*102852\*

Page 1

Item ID: D3499-3 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: PLASTIC CABLE GUARD  
 Start Date: 6/14/2013 Start Qty: 4.00 **\*4\*** Cust Item ID:  
 Required Date: 6/14/2013 Req'd Qty: 4.00 **\*4\*** Customer:  
 Reference:

Approvals: Process Plan: *PL* Date: *13-08-1* Tooling: Date: Run Start **\*NR1\***  
 QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
D3499	Rev C								
100		0.00							
<b>*100*</b>	FLOW WATER JET					<i>4</i>	<i>02</i>	<i>14-3-8</i>	
Waterjet	Memo	0.00							
FLOW CNC Waterjet	1-Cut as per Dwg D3499								
<i>UHMW 0.625</i>	Dwg Rev: <i>6</i>								
	Prog Rev: <i>6</i>								
	2-Deburr if necessary								
110		0.00							
<b>*110*</b>	QC2- Inspect parts off machine FAI/FAIB					<i>4</i>	<i>02</i>	<i>14-3-8</i>	
QC	Memo	0.00							
Quality Control									
120		0.00							
<b>*120*</b>	HAAS CNC VERTICAL MACHINING #1					<i>4</i>	<i>0</i>		
HAAS 1	Memo	0.00							
HAAS CNC vertical machine #1	1- Mill as per Folio FA636 Rev: <i>AA</i> & Dwg D3499 Rev: <i>C</i>								
	2-Deburr per dwg D3499								

*OK 14/03/12*

# Work Order ID 102852

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**\*102852\***

Page 2

Item ID: D3499-3

Accept

**\*N9000040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: PLASTIC CABLE GUARD

Stop **\*NS2\***

Start Date: 6/14/2013 Start Qty: 4.00

**\*4\***

Cust Item ID:

Required Date: 6/14/2013 Req'd Qty: 4.00

**\*4\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

QC2- Inspect parts off machine FAI/FAIB

0.00

*ML 14/03/12*

*4*

*0*

**\*130\***

QC

Memo

0.00

Quality Control

140

CONVENTIONAL MILLING MACHINE

0.00

**\*140\***

Mill Conv

Memo

0.00

Conventional Milling Machine

C'BORE AS PER DWG D3499

*4*

*D4  
39  
89*

*13.03.14*

150

QC2- Inspect parts off machine FAI/FAIB

0.00

**\*150\***

QC

Memo

0.00

Quality Control

*4*

*D4  
39  
89*

*13.03.14*







# Picklist Print

Friday, August 02, 2013 8:48:02 AM

Page 1

Work Order ID: 102852

\*102852\*

Parent Item: D3499-3

\*D3499-3\*

Parent Item Name: PLASTIC CABLE GUARD

Start Date: 6/14/2013

Required Date: 6/14/2013

Start Qty: 4.00

Required Qty: 4.00

## Comments:

IPP Rev:A New Issue 06-05-05 JLM

IPP Rev:B As per Rev B 06-08-31 JLM

revC DD 10.02.23 verified by:EC

IPP Rev:C as per dwg

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

MUHMWB625

Purchased

No

110

sf

131.0000

1.081

4.551579

**\*MUHMWB625\***

UHMW .625 Black Tivar 1000

\*\*

EL 14-3-8

## Location

MAT019

119591

123948

124381

## Loc Qty

131

19

64

48

## Loc Code

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4.6'

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>													
Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>													
Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>													
Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>														

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence
--	--	---

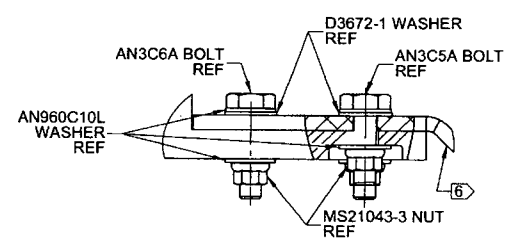
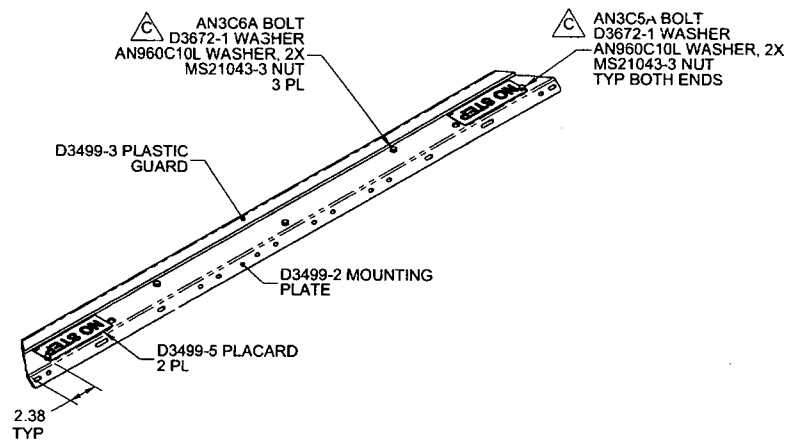
☐ Outside Dimensions  
☐ Over/Under tolerance  
☐ Part Incorrect  
☐ Part Lost/Missing  
☐ Part Moved  
☐ Positioned Wrong  
☐ Power Loss/Surge

☐ Pressure/Forced  
☐ Set-up  
☐ Temperature/Cure  
☐ Weld  
☐ Wrong Stock Pulled  
☐ Other

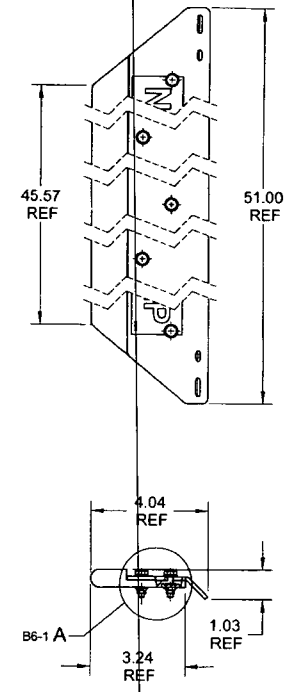
## FIRST ARTICLE INSPECTION CHECKLIST

Rev	Date	Change	Revised by	Approved
A	06.09.27	New Issue	KJ/JLM	
B	12.05.15	Dimensions updated per Dwg Rev C	KJ	





**DETAIL A**  
SCALE 4X



**D3499-042 CABLE GUARD ASSEMBLY**

ITEM	QTY	P/N	DESCRIPTION
1	X	D3499-042	CABLE GUARD ASSEMBLY
2	1	D3499-2	MOUNTING PLATE
3	1	D3499-3	PLASTIC GUARD
4	2	D3499-5	PLACARD
5	2	AN3C5A	BOLT
6	3	AN3C6A	BOLT
7	10	AN960C10L	WASHER
8	5	MS21043-3	NUT
9	5	D3672-1	WASHER

102852  
RLB-08-1

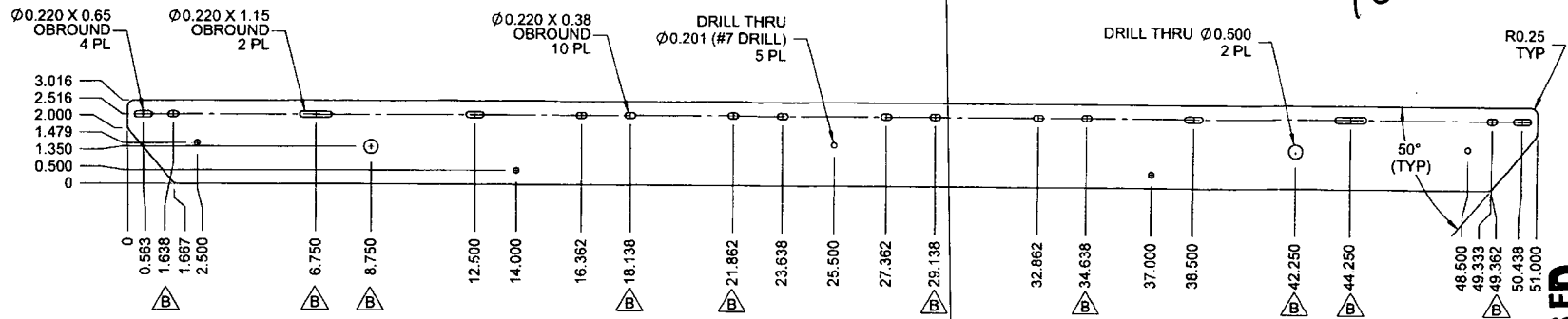
**RELEASED**  
2010-02-02  
MD

- NOTES:**
- 1) MATERIAL: N/A
  - 2) FINISH: N/A
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3499-041/-042" USING FINE POINT PERMANENT INK MARKER
  - 7) WEIGHT: 3.90 lbs

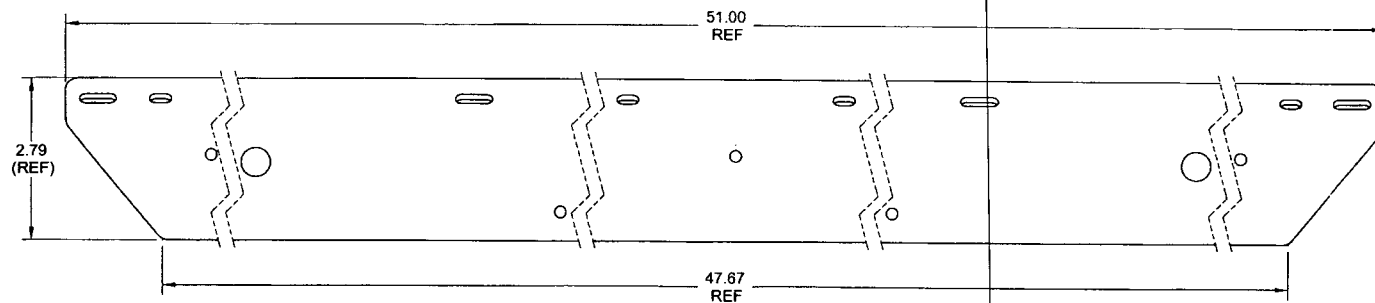
C		DRAWING UPDATED TO CURRENT STANDARDS. 3.24 WAS 3.235 (ZN B6-3); 3.24 WAS 3.25 (ZN D3-3); REVISE TOLERANCE & 2.01 WAS 2.00 (ZN D3-3); D3672-1 WAS NAS1515H3L (ZN D3-1, D5-1, D7-1); ADD IDENTIFY NOTE (ZN A8-1); REF NCR-09-045		RF	09.06.19
B		RE-DESIGN D3499-2F/-3		MB	06.08.15
A		NEW ISSUE		MB	06.04.11
REV	DESCRIPTION			BY	DATE
DESIGN	DART AEROSPACE USA, INC.				
DRAWN	PORT HADLOCK, WA				
CHECKED	DRAWING NO.			REV. C	
MFG. APPR.	D3499			SHEET 1 OF 4	
APPROVED	TITLE			SCALE	
DE APPR.	CABLE GUARD			NTS	
DATE	09.06.19			COPYRIGHT © 2006 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

8 7 6 5 4 3 2 1

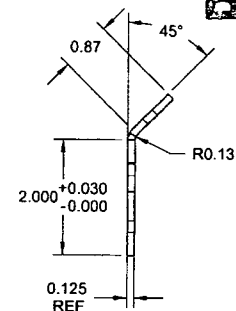
102851



**D3499-2F MOUNTING PLATE FLAT PATTERN**  
SCALE 0.5X



**D3499-2 MOUNTING PLATE**



**D3499-2 BENDING DETAIL**

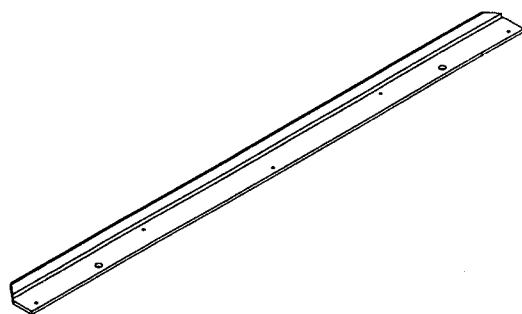
**NOTES:**

- 1) MATERIAL: 6061-T6 ALUMINUM SHEET 0.125 THICK  
PER AMS-QQ-A-250/11 OR AMS 4025 OR ASTM B209  
REF. DART SPEC. M6061T6S.125
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT "WHITE" (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.81 lbs

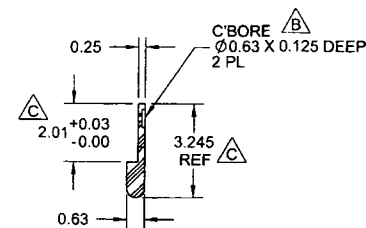
DESIGN	B	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	Y	DRAWING NO.	REV. C
MFG. APPR.		D3499	SHEET 2 OF 4
APPROVED		TITLE	SCALE
DE APPR.		CABLE GUARD	NTS
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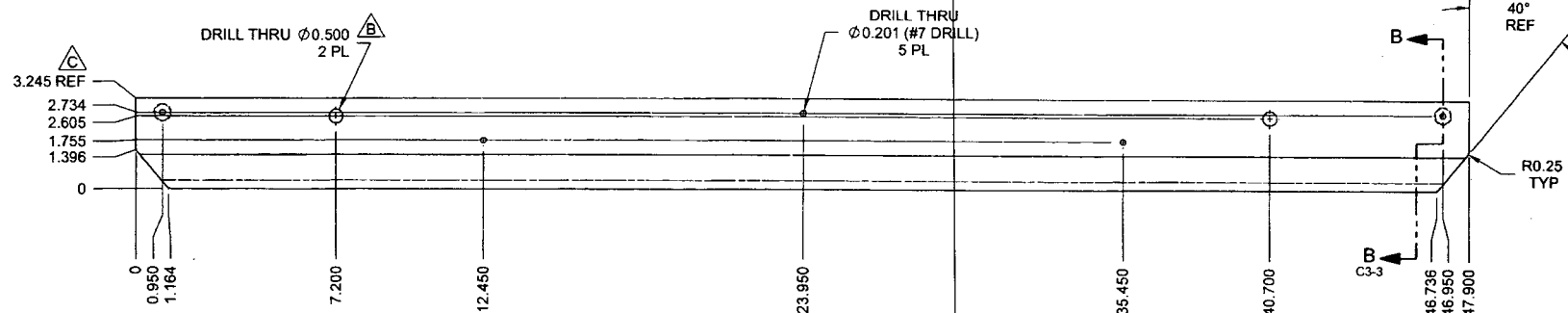
RELEASED  
R 2010-02-02 MD



102857



**SECTION B-B** B2-3



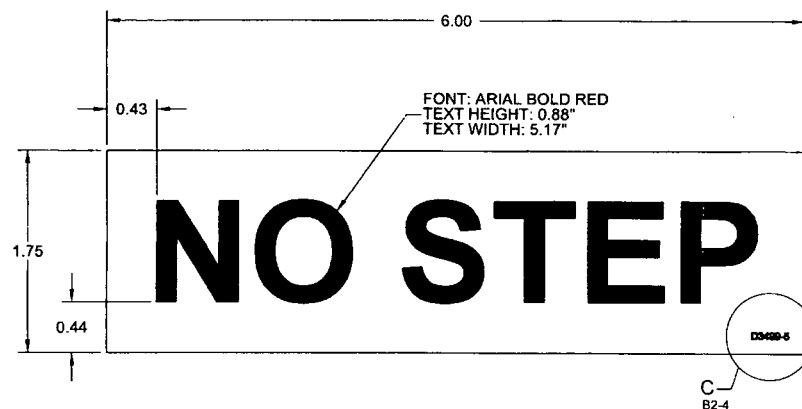
**D3499-3 CABLE GUARD**

**NOTES:**

- 1) MATERIAL: UHMW BLACK TIVAR 1000 VIRGIN MATERIAL  
REF. MUHMWB
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 2.52 lbs

**RELEASED**  
2010-02-02  
ND

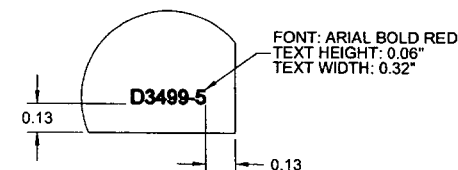
DESIGN	RF	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.	RF	D3499	SHEET 3 OF 4
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	CABLE GUARD	NTS
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**D3499-5 PLACARD**

**NOTES:**

- 1) MATERIAL: RED LETTERS ON WHITE ADHESIVE BACK VINYL  
MANUFACTURED FROM 3M 7 MIL MASKING FILM #8522CP OR  
AVERY IPM #2031. SIZE IS 6.00\" LONG x 1.75\" WIDE
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A



**DETAIL C** B5-4  
SCALE 2X

**RELEASED**  
2010-02-03  
MB

DESIGN	RF	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.	RF	D3499	SHEET 4 OF 4
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	CABLE GUARD	NTS
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